

Dissertation Abstracts

THE RELEVANCE OF THE REFERENCE GROUP FOR STUDENTS WITH LOW ACHIEVEMENT: A CONTRASTING JUXTAPOSITION OF COMPARATIVE AND NORMATIVE PEER EFFECTS

Peers are considered as one of the major school factors of student's educational development. However, there is an ongoing controversial debate about the type of impact of the peer group on students with low academic achievement and, in particular, the mechanisms underlying it—a controversy that is accentuated in the light of school tracking and inclusive education. The aim of this dissertation was therefore to investigate the mechanisms of such peer effects in inclusive classes before and after the assignment to different tracks at lower secondary school.

After an introduction to the topic, the two contradictory theoretical approaches—comparative versus normative peer effects—are elucidated with reference to the current state of research. According to Marsh' theoretical model of reference groups, on one hand, attending a class or school with relatively high group-average achievement has a negative effect on student's academic self-concept over and above the effect of individual achievement. Such comparative peer group influences, well known as the big-fish-little-pond effect, are hypothesized to have a particular deleterious effect for students with low achievement in a reference group with high ability level. On the other hand, normative peer effects predict favorable academic development in high-achieving or mixed-ability learning groups. The rationale behind this approach is the assumption that students' achievement is influenced indirectly through normative characteristics of their social learning environment, which in turn depends to a large extent on the educational tracking system. Normative factors include peers' achievement-related goals as well as certain normative aspects of teaching practice. Furthermore, both theoretical models imply an impact on educational and occupational aspirations.

Based on the theoretical considerations and previous research, four research questions and the corresponding hypotheses were examined: First, it was tested if the comparative peer effect on academic self-concept could be replicated in inclusive classes at the end of primary education. Second, it was investigated whether the compositional effect on students' academic achievement was mediated by performance-related norms in primary classes, teacher's frame of reference, and learner-centered instruction. The third question dealt with the two conflicting predictions for students with low achievement in connection with transition from primary to lower secondary school. Fourth, the question was explored, which of the hypothesized variables predict students' occupational aspirations at the end of lower secondary education.

To address the research questions, data of a study undertaken in the German-speaking part of Switzerland were used. The sample at the first measurement point consisted of about

600 students in 40 classes in Grade 6. About half of them could be surveyed again 3 years later after the transition to lower secondary level. In Grade 9, they were distributed over 145 classes. The response rate analysis showed that data of the second measurement point were missing at random. The three dependent variables were operationalized as follows: Academic self-concept was assessed with a 4-item scale. Math and German achievement were based on standardized achievement tests. Occupational aspirations were classified based on the Standard International Occupational Prestige Scale.

Analyses were conducted mainly with the statistical program Mplus. Because students were clustered in classes, the nonindependence of observations was considered either using multilevel modeling or the complex-design approach. The hypothesized mechanisms were assessed by means of mediation analysis. To examine interindividual differences in intraindividual change, latent true-change models with school track as explanatory variable were performed.

The results reflect to a large extent the theoretical controversy around peer effects as depicted in the first part of the dissertation. They seem to indicate that comparative and normative peer influences are two coexisting phenomena. Analysis regarding differential effects depending on track attended at lower secondary school revealed, among others, on a descriptive level that a sixth of all students with low achievement at the end of primary education were in tracks with intermediate or advanced requirements. In general, changes in students' academic self-concept and academic achievement differ according to school track. Because the requisite of longitudinal measurement invariance was met, differences can be attributed to true changes.

Key results concerning mechanisms of peer effects and tracking in connection to the triad *academic achievement–academic self-concept–occupational aspirations* are discussed from a theoretical and a methodological perspective. The relevance of the findings for students with low achievement is outlined based on the juxtaposition of comparative and normative peer effects. Finally, this dissertation concludes with considerations in terms of educational implications and with directions for further research.

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